

MODIS IOT Weekly Report

Mission Operations Days: 2000/016 to 2000/022

January 15, 2000 15:00:00 EST to January 22, 2000 14:59:59 EST

Terra Spacecraft and MODIS Instrument Status:

Terra (AM-1) is in Normal Mode

Terra (AM-1) has an anomaly with the propulsion thrusters

MODIS is in Standby Mode

MODIS has no known Anomalies

Blackbody	Off	Nominal
Calibration Electronics	A On; B off	Nominal
Control Processor	B On; A off	Nominal
Door: Nadir	Unlatched, closed	Nominal
Space View	Unlatched, at Outgas	Nominal
Solar Diffuser	Unlatched, closed	Nominal
FDDI Formatter	Off	Nominal
FIFO Memory	Off	Nominal
Format Processor	Off	Nominal
PC FPA	Off	Nominal
Power Supply: 1	Off	Nominal
2	On	Nominal
PV FPAs: VIS	Off	Nominal
NIR	Off	Nominal
SMIR	Off	Nominal
LWIR	Off	Nominal
Radiative Cooler:		
Outgas Heaters	Off	Nominal
LWIR FPA Heater	Off	Nominal
SMIR FPA Heater	Off	Nominal
Scan Assembly	Off	Nominal
SDSM	Off	Nominal
SRCA	Off	Nominal
Survival Heaters: PS1	Enabled	Nominal
PS2	Enabled	Nominal
Flight Software	Rev BD	Nominal
Inhibit Ids Set	None	Nominal
TMONs enabled	None	Nominal

This Week's Completed MODIS Activities:

2000/017 12:27 EST Turned off outgas heaters. Total outgas time: 12:21:18:00.

This Week's Scheduled MODIS Activities Not Completed:

The science mode transition that was scheduled for Monday, January 17th, was postponed. Current plans include a MODIS science transition on Monday, January 24th.

Upcoming MODIS Events:

2000/023	Jan 23 rd , 2000	Turn on all three outgas heaters
2000/023	Jan 23 rd , 2000	Open space view door
2000/024	Jan 24 th , 2000	Begin formatter Day / Night transitions via BAP
2000/024	Jan 24 th , 2000	Turn off outgas heaters
(wait 4 hours...MOD_TA_RC_CS_OG must be <= 250K)		
2000/024	Jan 24 th , 2000	Transition to Science Mode on B side
2000/024	Jan 24 th , 2000	Perform PV electronics calibration (ATC)
2000/024	Jan 24 th , 2000	Turn on blackbody to 285K to warm for A side electronics
2000/025	Jan 25 th , 2000	Memory Load / Dump
2000/025	Jan 25 th , 2000	Perform sector rotation to view SV with EV during two moon in SV events (delta = -3072).
2000/025	Jan 25 th , 2000	SDD Screened-Closed-Open-Closed functional test
2000/026	Jan 26 th , 2000	Turn off MODIS
2000/026	Jan 26 th , 2000	Turn on MODIS on the A side
2000/026	Jan 26 th , 2000	Transittion to Science Mode on the A side
2000/026	Jan 26 th , 2000	Perform SDSM Functional Test
2000/026	Jan 26 th , 2000	Set Blackbody duty cycle to FULL
2000/026	Jan 26 th , 2000	Perform PV and PC electronics calibrations (ATC)
2000/026	Jan 26 th , 2000	Perform SDSM calibrations w/ SD Open and Screened Utilizes expedited data.
2000/026	Jan 26 th , 2000	Perform BB calibration to 315K (ATC)

MODIS Anomalies:

The formatter engine temperatures (A and B) continues to cyclically drop below their yellow limits. There are no health and safety risks. These temperatures are varying cyclically with the MEM survival heater duty cycle.

General Instrument Comments:

MODIS is currently in Standby Mode with all three doors unlatched, the space view door at the outgas position, and all outgas heaters turned off. The calibration electronics are powered on the A side due to the recovery process from Safe mode.

MODIS “science data” was transmitted to ground based antennas via the X-band transponder. This science data is not “real” because the MODIS formatter is not powered on and the nadir aperture door is closed.

MODIS Telemetry Trends:

No new trends.

Non-MODIS Significant Events:

2000/019: A +500ms clock adjust was performed to correct the clock error to within one 85ms epoch of predicted error.

The ASTER TIR CPHTS is still not functioning nominally. The CPHTS anomaly resolution is continuing.

Analysis and discussion of the thruster data continues. Sixteen 1 second engineering burns are scheduled for Monday, January 24th.

Limited Life Item Status:

No limited life items were exercised this week. All limited life items are well within lifetime ranges, although precise statistics for each item are still pending.